

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed October 6, 2008. At the time of the Office Action, Claims 6-25 were pending in this Application. Claims 6-25 were rejected. Claims 6, 13, and 20 have been amended to include the limitations of Claims 11, 18, and 25 respectively. New Claim 26 is presented. Claims 1-5 were previously canceled and Claims 11, 18, and 25 are hereby cancelled without prejudice or waiver. Applicant respectfully requests reconsideration and favorable action in this case.

Independent Claims 6, 13, and 20 Are Allowable Over Hirose

Claims 7, 11, 14, 18, 21 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,407,345 issued to Naohiro Hirose et al. ("*Hirose*"). Applicant respectfully traverses and submits the cited art does not render the pending claims obvious. In order to establish a prima facie case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

A *prima facie* case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997) (Applicant argued that the prior art taught away from use of a protective layer for a reflective article having a thickness within the claimed range of "50 to 100 Angstroms." Specifically, a patent to Zehender, which was relied upon to reject applicant's claim, included a statement that the thickness of the protective layer "should be not less than about [100 Angstroms].")

In this case, Independent Claims 6, 13, and 20 have been amended to include the limitations of dependent Claims 11, 18, and 25 (cancelled herein). Namely:

the through-bores are approximately 20 μ m in size.

Hirose does not disclose, teach, or suggest through-bores approximately 20 μ m in size. In fact, *Hirose* teaches away from this aspect of the claims. *Hirose* describes through-bores with a radius between 125 μ m and 175 μ m in size:

In the printed wiring board of claim 25, a radius of the through hole is set to be equal to or smaller than 175 μm and is equal to or greater than 125 μm . When the radius of the through hole exceeds 175 μm , the number of through holes arranged in the core substrate is reduced. In contrast to this, when the radius of the through hole is smaller than 125 μm , it is difficult to form the through hole by a drill.

(*Hirose*, 8:38-44).

Hirose explicitly teaches that through-holes should not be smaller than 125 μm . For at least this reason, Claims 6, 13, and 20 are not obvious in light of *Hirose*. Because Claims 7-10, 12, 14-17, 19, and 21-24 depend from these allowable claims, they are likewise allowable.

New Independent Claim 26 Is Allowable Over *Hirose*

Claims 6, 8, 13, 15, 20 and 22 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,407,345 Naohiro Hirose et al. ("*Hirose*"). Applicant respectfully traverses and submit the cited art does not teach all of the elements of the claimed embodiment of the invention. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "the identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicant respectfully submits that the art cited as anticipatory by the Examiner cannot anticipate the rejected Claims, because the cited art does not show all the elements of the present Claims.

New Independent Claim 26 incorporates the limitations of Claim 6 as previously rejected by the Examiner, but also specifies that no **brushing or coarsening** of the electrically conductive general layer of the circuit boards is performed between the steps of etching and applying an insulating lacquer. The basis for this amendment can be found on page 5, step 4, of the filed specification. Thus, no new matter has been added.

Applicant respectfully urges that the claims, as currently amended, are allowable in view of *Hirose* because the method disclosed by *Hirose* includes coarsening the surfaces of

the circuit boards between the steps of etching and applying an insulating lacquer. *Hirose*, column 15, lines 15-21, lines 45-51, column 16, lines 1-5. In contrast, the amended independent claims explicitly specify that no **brushing or coarsening** of the electrically conductive general layer of the circuit boards is performed between the steps of etching and applying an insulating lacquer.

Since *Hirose* fails to disclose a method for the production of circuit boards wherein not of any one of brushing, coarsening, and polishing of the surfaces of said circuit boards are performed between the steps of etching and applying an insulating lacquer, it is respectfully requested that the Examiner find New Independent Claim 26 allowable.

Rejections under 35 U.S.C. §103

Claims 7, 11, 14, 18, 21 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Hirose*.

Claims 9-10, 12, 16-17, 19 and 23-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Hirose* in view of Applicant's Admitted Prior Art ("*AAPA*").

Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the claimed embodiment of the invention obvious. As shown above, Independent Claims 6, 13, and 20 are allowable over *Hirose*. For at least that reason, the remaining dependent claims are likewise allowable.

Petition for Extension of Time

Applicant encloses a Petition for Extension of Time Request (2 months) and authorizes the Commissioner to charge \$490.00 extension filing fee to Deposit Account No. 50-2148 of Baker Botts L.L.P. If it is later determined that additional fees are necessary to effectuate this filing, the Commissioner is authorized to charge any additional to Deposit Account No. 50-2148 of Baker Botts L.L.P.

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PATENT APPLICATION
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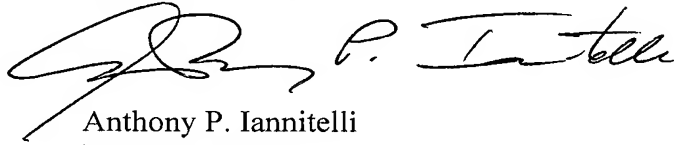
CONCLUSION

Applicant has now made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicant respectfully requests reconsideration of Claims 6-25 as amended.

Applicant believes there are no additional fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.322.2642.

Respectfully submitted,
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Date: March 6, 2009

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